REMARKS

Section 102 rejection

Claims 11, 20-22 and 24 are rejected under 35 U.S.C. § 102 (b) as being anticipated by Jones et al. (WO 00/20157). Applicants disagree.

The Jones reference is directed to a method of forming a *weld* between two work pieces. The process of Jones welds two substrates together. The polymer insert of Jones is not an adhesive and Jones does not, as urged by the examiner, teach an adhesive composition that bonds substrates together. One skilled in the relevant arts would not equate the process of bonding using an adhesive with the process of welding.

With reference to Figure 2, Jones discloses (see page 8, lines 20-27) that:

> when the joint region 13 is exposed to the radiation beam 14, the weld material 16 absorbs heat causing heating of the surrounding joint region 3 [sic, 13]. Consequently the plastic workpieces 11, 12 melt in the joint region 13 and on cooling form a weld.

Applicants' substrates do not melt in the joint area, applicants' invention does not involve welding, and applicants' claims are not anticipated by the disclosure of Jones.

Applicants' invention requires the presence of an adhesive that can be reactivated (i.e., a reactivatable adhesive). As defined in applicants' specification (see page 4, lines 13-20):

> Reactivation, as this term is used herein, refers to an adhesive that resides on at least a portion of at least one substrate to be bonded. That is, the adhesive has been applied to a substrate in the molten state and allowed to cool, i.e., solidify, thereon. The adhesive present on the substrate is thereafter reactivated or heated to a molten state, brought in contact with a second substrate and allowed to cool or solidify, thereby bonding the two substrate together. The application of the adhesive onto a substrate for later activation or "reactivation" is referred to herein, and in the art as a "pre-applied" adhesive. The adhesive present on the substrate may be reactivated anytime after initial application to the substrate for bonding to a second substrate.

The insert or weld material of Jones is not a reactivatable adhesive and is not preapplied on at least one of the substrates to be welded together (i.e., a pre-applied adhesive).

Applicants submit that Jones fails to anticipate the invention of claims 11, 20-22 and 24.

Withdrawal is requested.

Section 102/103 rejection

Claims 11, 20, 21 and 29 are rejected under 35 U.S.C. § 102 (b) as being anticipated by or, in the alternative, under 35 U.S.C. § 103 (a) as being anticipated by Shaw et al. (U.S. Patent No. 5,498,304).

Shaw discloses a process whereby the speed of adhesive bonding of a linerboard to a corrugating medium can be increased. In the process of Shaw, adhesive bonding is achieved with the application of radiant energy at a wavelength for which water, paper and adhesive have a low absorption coefficient (col. 1, lines 46-51). Shaw thus teaches that there is a low absorption of NIR energy by the adhesive (see also col. 2, line 44-46).

In contrast, applicants add an energy-absorbing ingredient to the adhesive. Shaw fails to disclose the presence of an energy-absorbing ingredient in the adhesive.

While applicants acknowledge that Shaw, as noted by the examiner, discloses that polymeric adhesives, in addition to starch based adhesives (i.e., conventional corrugating adhesives), may be used in the practice of the invention (col. 3, lines 35-39), such disclosure does not anticipate or render obvious the pre-application of any adhesive to the substrate, such as the hot melt adhesive of claim 21, which adhesive is later reactivated by use of radiant energy.

From the overall disclosure of Shaw, the polymeric adhesives referred to by Shaw

are, like starch based adhesives, aqueous liquid adhesive, e.g., adhesives containing vinyl acetate/ethylene copolymers, vinyl acetate, polyvinyl acetate, polyvinyl alcohol, acrylics and the like, rather that natural polymers (e.g., starch). That is, Shaw contemplates that synthetic polymers, in addition to natural polymer (i.e., starch), can be used in the practice of the invention.

There is no disclosure or suggestion in the disclosure that the adhesive has been pre-applied to the substrate, and later reactivated using radiant energy. While Shaw discloses that instead of the starch or polymeric adhesive, "a thermoplastic film capable of bonding paperboard may be fed between the nip . . . . . and subsequently subjected in IR radiation, to melt the film into an adhesive layer," Shaw fails to disclose or suggest the presence of an energy absorbing ingredient in the thermoplastic film, or that the thermoplastic film is preapplied to a substrate and later reactivated to bond the substrate to another substrate.

Applicants submit the Shaw fails to anticipate or render obvious the invention of claims 11, 20, 21 and 20.

Withdrawal is requested.

Section 103 rejections

- Claims 13 and 14 are rejected under 35 U.S.C. § 103 (a) as being unpatentable over Jones et al. (WO 00/20157).

The examiner urges Jones teach all the limitations except for those recited in claims 13 and 14. Applicants disagree.

Applicants incorporate by reference their remarks set forth above with respect to the Jones document. Claims 13 and 14 are directed to a method of closing a container. Jones fails to disclose or suggest that the process described can be used to close a container. As

such, claims 13 and 14 is not obvious over Jones.

Withdrawal is requested.

- Claims 13 and 14 are rejected under 35 U.S.C. § 103 (a) as being unpatentable over Shaw et al. (U.S. Patent No. 5,498,304).

The examiner urges that Shaw teach all the limitations except for those recited in claims 13 and 14. Applicants disagree.

Applicants incorporate by reference their remarks set forth above with respect to the Shaw document. Claims 13 and 14 are directed to a method of closing a container. Shaw fails to disclose or suggest that the process described can be used to close a container. As such, claims 13 and 14 is not obvious over Shaw.

Withdrawal is requested.

- Claims 22 and 24 are rejected under 35 U.S.C. § 103 (a) as being unpatentable over Shaw et al. (U.S. Patent No. 5,498,304), as applied to claims 11, 20, 21 and 29, and further in view of Jones et al. (WO 00/20157).

It is the examiner's position that Shaw teaches all of the limitations in claims 22 and 24 except for a specific teaching as to the type of energy-absorbing ingredient in the polymeric adhesive. The examiner urges that it would have been obvious to one skilled in the art to use as the energy absorbing ingredient in the radiant energy activatable polymeric adhesive taught by Shaw dissolvable organic dyes as it was will know in the art to use dissolvable organic dyes as radiant energy absorber ingredients as shown by Jones. Applicants disagree.

Applicants incorporate by reference their remarks set forth above with respect to the Shaw and Jones documents. Neither Jones nor Shaw, even when combined, suggests a substrate having applied thereon a reactivatable adhesive.

Withdrawal is requested.

- Claims 11-14, 20-22, 24 29-32, 34 and 39 are rejected under 35 U.S.C. § 103 (a) as being unpatentable over the admitted prior art in view of Jones et al. (WO 00/20157).

Applicants acknowledge that hot melt adhesives are conventionally used to seal containers and that the adhesives may be pre-applied and then reactivated prior to sealing. Applicants' disclosure on page 1, paragraph 4 and page 2, paragraph 1, is directed to heat sealing operations. It is the examiner's position that it would have been obvious to one skilled in the art to modify the prior art hot melt adhesives to include an energy absorbing ingredient to increase the speed at which the adhesive is reactivated. Applicants submit that the examiner has failed to establish a *prima facie* case of obviousness.

It is well known that in order to establish a *prima facie* case of obviousness; three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings. Second, there must be a reasonable expectation of success. Third, the prior art reference(s) must teach or suggest all the claimed limitations. Moreover, the teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicants' disclosure. See, In re Vaeck, 20 USPQ2d 1438 (Fed. Cir. 1991) and MPEP 214.

The examiner has failed to meet these requirements. The prior art does not suggest or provide any motivation to use energy absorbing ingredients in amounts needed to reactivate an adhesive present on a substrate as claimed by applicants. The combined prior art fails to suggest the claimed modification or a reasonable expectation of success.

of success.

Withdrawal is requested.

Early and favorable action is solicited.

Respectfully submitted,

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